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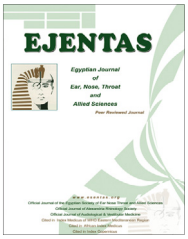

CASE REPORT

Nasopharyngeal carcinoma presenting as a peritonsillar abscess

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KEYWORDS

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Abstract Nasopharyngeal cancers account for 1–5% of all childhood cancers. Its symptoms can often be deceptive and confusing. Peritonsillar abscess is generally seen as a complication of acute tonsillitis in young subjects. It may, however, in rare cases reveal a malignant pharyngeal tumor.

We report a rare case of undifferentiated carcinoma revealed by a peritonsillar abscess in a child.

1. Introduction

The nasopharyngeal cancer (NC) in a child is a rare entity posing a diagnostic challenge and therapeutic dilemma.[1] The presenting symptoms of this cancer can often be confusing until the tumor reaches a relatively advanced stage.

Thus, infection coexistent with NC can complicate the clinical presentation and may lead to delayed diagnosis.[2,3]

We report a rare case of a nasopharyngeal carcinoma revealed by a peritonsillar abscess in a child. The study is intended to alert physicians to the possibility of malignancy in the case of peritonsillar abscess occurring in a child.

2. Case report

An 8-year-old boy was presented with a two-week history of sore throat, fever and associated painful right neck swelling.

Oropharyngeal examination revealed inferior medial displacement of the right tonsil, with deviation and edema of the uvula. All oropharyngeal mucosa were congestive with swelling of the soft palate (Fig. 1).

Cervical examination found two 3 cm superior right jugular-carotid mass that were firm, mobile and painless. Nasal endoscopy showed an aspect of adenoid vegetations.

The diagnosis of peritonsillar abscess was made when the puncture of the peritonsillar tissue produced about 3 ml of foul pus.

The child was hospitalized and intravenous antibiotic therapy was started.

The evolution was marked by the worsening of symptoms. After 24 h imaging (CT and MRI) was performed and showed tumoral pharyngeal process measuring 8 cm from the skull base to C5 associated to necrosed retropharyngeal lymph nodes (Figs. 2–4).

The patient quickly developed a tight trismus associated with a fever, torticollis and inspiratory dyspnea. Tracheostomy and multiple biopsies from oropharyngeal bulge were performed under general anesthesia.

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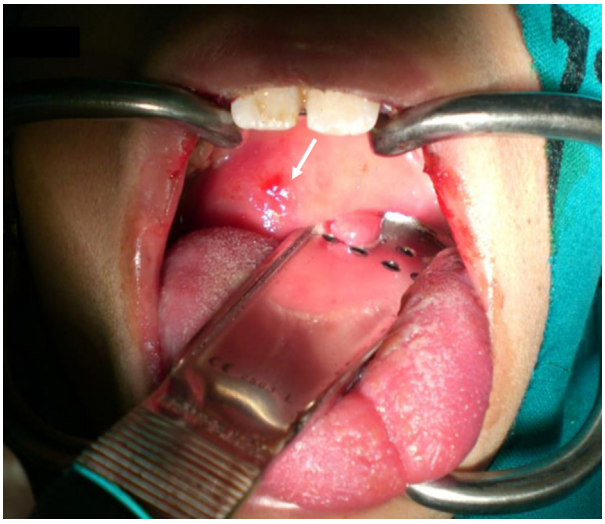

Figure 1 Oropharyngeal examination reveals medial displacement of the tonsil with edema and right swelling of the soft palate (arrow).

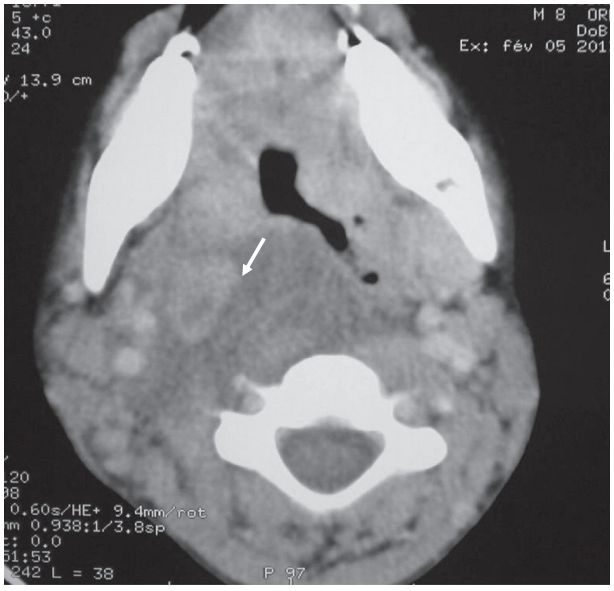

Figure 2 CT scan of the oropharynx in axial view demonstrating a heterogeneous oropharyngeal tumor (arrow).

The histological examination with immunohistochemistry confirmed the diagnosis of undifferentiated carcinoma. He was treated by induction chemotherapy followed by concurrent chemoradiotherapy with a good response (Fig. 5). No recurrence was observed after 18 months of follow-up.

3. Discussion

Nasopharyngeal cancer is an endemic tumor that is common in the southern parts of China, Southeast Asia and the Mediterranean basin.[4] Age distribution for this type of cancer is bimodal in North Africa with an early peak of incidence at 10–20 years and second at 40–60 years.[4]

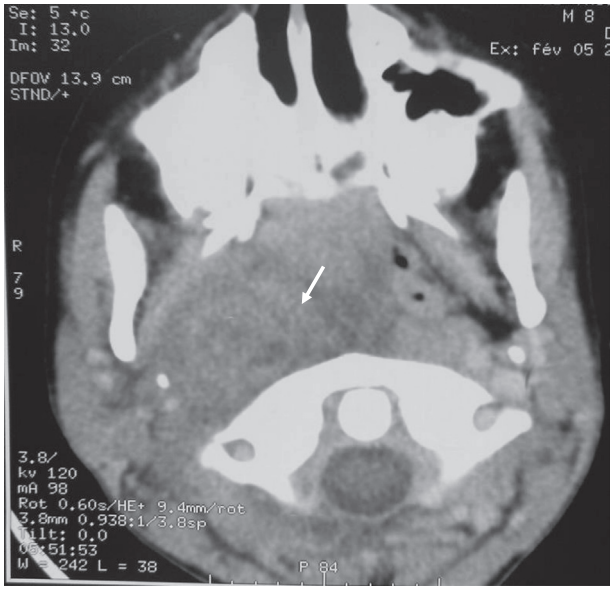

Figure 3 CT scan of the nasopharynx in axial view showing tumor invading the parapharyngeal space (arrow).

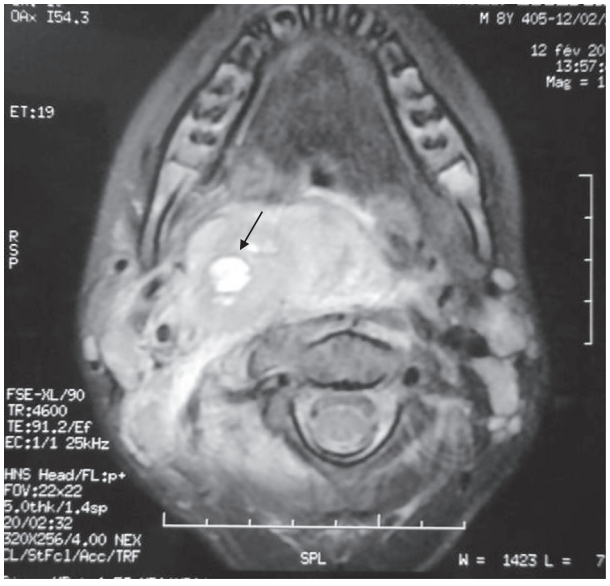

Figure 4 T2-weighted MRI showing tumoral pharyngeal process associated to necrosed retropharyngeal lymph nodes (arrow).

Great variations exist between racial and geographical groups, nasopharyngeal carcinoma constitutes 1–5% of all cancers, but 20–50% of all primary nasopharyngeal malignant tumors in children.[4]

Undifferentiated NC is the most frequent histological type in childhood. It is typically associated with a more advanced locoregional stage and with more frequent distant metastases than in the adult. Nevertheless, the 5 year disease-free survival like the adult varies from 30% to 60%.[5]

Abscesses may form in the malignancy of the nasopharynx secondary to necrosis and cavitation of the primary tumor or lymph nodes.[6]

Figure 5 Oropharyngeal examination showed regression of the tumor.

Chen and Lee described a case of nasopharyngeal carcinoma with the initial manifestation of an intracranial abscess without symptoms suggestive of the primary nasopharyngeal carcinoma for which diagnosis was not made until the third admission.[3] Pak reported two rare cases of nasopharyngeal carcinoma presenting as retropharyngeal abscess causing a delay in the cancer diagnosis.[2]

In our patient the retropharyngeal lymph nodes were already involved by tumor which then became infected with subsequent abscess formation mimicking a peritonsillar abscess.

The peritonsillar abscess is a common complication of acute tonsillitis in which physical examination find medial displacement of the tonsil with edema and displacement of the uvula.[6] Needle aspiration remains the gold standard for the diagnosis and treatment of peritonsillar abscess.[7,8]

When diagnosing a peritonsillar abscess in a child the possibility of alternative diagnoses, including malignancy, must be considered, especially when the clinical presentation is atypical.[9]

CT scan can be used if the diagnosis of a peritonsillar abscess is uncertain, a full clinical examination cannot take place (severe trismus, agitation), a deep neck space infection or complication is suspected, or the patient does not respond to the therapy satisfactorily.[10] Friedman recommends CT scans for children younger than 5 years of age with a suspected peritonsillar abscess due to the physical limitations of small oropharynx.[11]

4. Conclusion

Whereas pediatric nasopharyngeal cancer is rare, peritonsillar abscess is a common deep space head and neck infection in children. The clinical presentation of the pediatric NC can often be deceptive and confusing. Peritonsillar abscess is a deep suppuration commonly found in the cervico-facial region most frequent in adolescents and young adults. In a child the possibility of alternative diagnoses, including malignancy, must be considered, especially when presenting with an atypical clinical presentation.

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Conflict of interest

None declared.

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